

What is claimed:

1. A system for treating tissue within a tissue region using electrical energy, comprising:

a source of electrical energy;

5 a first ablation device comprising a plurality of electrodes coupled to the source of energy; and

a second ablation device comprising a plurality of electrodes coupled to the source of energy in parallel with the first ablation device, whereby the first and second ablation devices can substantially simultaneously create first and
10 second lesions, respectively, within a tissue region; and

a ground electrode coupled to the source of energy opposite the first and second ablation devices.

2. The system of claim 1, wherein the source of electrical energy
15 comprises first and second terminals coupled in parallel to one another, and wherein the first ablation device is coupled to the first terminal and the second ablation device is coupled to the second terminal.

3. The system of claim 2, wherein the source of electrical energy
20 comprises first and second control circuits coupled to the first and second terminals, respectively, in parallel with one another, the first and second control

circuits providing impedance feedback for the first and second terminals,
respectively.

4. The system of claim 1, wherein the source of electrical energy
5 comprises a terminal, and wherein the system further comprises a "Y" cable
coupled between the first and second ablation devices and the terminal.

5. The system of claim 1, wherein the source of electrical energy is a
radio frequency (RF) generator.

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6. The system of claim 1, wherein the source of electrical energy
comprises circuitry for determining impedance between the first and second
ablation devices and the ground electrode.

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7. The system of claim 1, wherein at one of the first and second
ablation devices comprises an array of wires deployable from a cannula, the
array of wires comprising the plurality of electrodes.

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8. A method for creating a lesion within a tissue region, the method
comprising:

inserting a first array of electrodes into a first site within a tissue region;

inserting a second array of electrodes into a second site within the tissue region, the second array of electrodes being coupled in parallel with the first array of electrodes; and

simultaneously delivering energy to the first and second arrays of
5 electrodes to generate lesions at the first and second sites within the tissue region.

9. The method of claim 8, further comprising coupling the first and second arrays of electrodes to a source of electrical energy.

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10. The method of claim 9, wherein the first and second arrays of electrodes are coupled to the source of electrical energy by connecting the first ablation device to a first output terminal of the source of electrical energy and connecting the second ablation device to a second output terminal of the source
15 of electrical energy.

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11. The method of claim 9, wherein the first and second arrays of electrodes are coupled to the source of electrical energy by coupling one end of a connector to a terminal of the source of electrical energy, and coupling parallel
20 ends of the connector to the first and second arrays of electrodes.

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12. The method of claim 11, wherein the connector comprises a “Y”
cable.

13. The method of claim 8, further comprising removing at least one of
5 the first and second arrays of electrodes from the tissue region and introducing
the at least one of the first and second arrays of electrode into a third site within
the tissue region.

14. The method of claim 8, wherein the first and second arrays of
10 electrodes are introduced into the first and second sites from first and second
cannulas, respectively.

15. The method of claim 14, further comprising introducing the first and
second cannulas into the tissue region until distal ends of the first and second
15 cannulas are disposed adjacent the first and second sites, respectively, and
wherein the first and second arrays of electrodes are deployed from the distal
ends of the first and second cannulas into the first and second sites, respectively.

16. The method of claim 8, wherein the tissue region comprises a liver.
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17. The method of claim 8, wherein the tissue region comprises a
tumor.

18. The method of claim 17, wherein the first and second sites are disposed adjacent to one another within the tumor such that the first and second lesions at least partially overlap.

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